

REMARKS

Claims 1-33 were pending in the present application. Claim 34 is newly presented. Claims 1, 2, 4-6, 8-10, 20, 21, 23-27, and 29 are currently amended. Claims 3, 7, 22, 32, and 33 are canceled. No new subject matter has been introduced.

Support for the amendments and new claim may be found throughout the specification and claims, as originally filed. By way of example, support for the amendment of claim 1 may be found at least at page 5, lines 7-14 and 22-25, and original claim 1.

Claim Rejections Under 35 USC §103

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (in IDS USP 4,840,903) in view of Nag Raj & Hughes (in IDS, New Zealand Journal of Botany, 1974, Vol. 12, p. 115-129) and further in view of Tenderdy et al. (Biochemical Engineering Journal, March 2003, Vol. 13, p. 169-179) and further in view of Lee et al. (Biotechnology Letters, 1999, Vol. 21 p. 965-968) and further in view of Duff & Murray (Bioresource Technology, 1996, Vol. 55, p. 1-33) and further in view of Sun et al. (in IDS Bioresource Technology, 2002, Vol. 83, p. 1-11) and further in view of Merchant et al. (Biotechnology Letters, 1988, Vol 10, No. 7, p. 513-516) and further in view of Clausen et al. (Proceedings of the 4th meeting of the Pan American Biodeterioration Society; 1994, New York Press: p. 231-242).

Applicant respectfully disagrees that the present claims are obvious in view of the cited art.

The cited art does not disclose a mixture of fungi

While Tenderdy et al. do discuss the production and the economics of enzymes for ethanol production, Applicant notes that the mix discussed on page 173 (second line) is related to the bacteria *Zymomonas mobilis* and the *fungus Trichoderma sp.* Thus, Tenderdy et al. do not teach a mixture of fungi as in the present claims.

Unexpected results

In accordance with the factual inquiries laid out in *Graham v. John Deere Co.*, 383 U.S. 1 (US 1966), Applicant hereby submits reports of work that have shown an unexpectedly high production volume of ethanol using the claimed methods. Applicant requests that this evidence of unexpected results be reviewed in accordance with MPEP 2145.

As detailed in the 37 CFR § 1.132 declaration of Dr. Petter Gustafsson (Declaration- Attachment A; CV- Attachment A to Declaration), ethanol production using a mix of at least two fungi comprising a fungus of the genus *Chalara* and a fungus of the genus *Trametes* has been shown to produce approximately 2-4 times more ethanol than the single use of either of these fungi. This is illustrated by the translated internal report entitled "Latest News Week 44- 2004" (Attachment B) and in the internal report entitled "Experimental data Week 43-2008" (Attachment C). For example, the report of Attachment C demonstrates that a combined mix of *Chalara* and *Trametes* fungi, at the same concentration of fungi (2 g/L) as the use of *Chalara* or *Trametes* alone, produced approximately two times the amount of ethanol under the same experimental conditions.

The skilled person faced with the problem of inventing a process for the production of ethanol through fermentation of organic starting materials would not arrive at the present solution: use of a mix of at least two fungi belonging to the genus *Chalara* and to the genus *Trametes*. Nothing in the prior art teaches that the mix of a fungi belonging to the genus *Chalara* and to the genus *Trametes* would produce 2-4 times more ethanol than single use of these fungi. There is nothing disclosed in the prior art that would suggest to mix the genus together. Thus, the surprising results are not obvious.

For the reasons stated above, Applicant requests that this basis for rejection be withdrawn.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No.: 03-1952** referencing **Docket No.: 616562000300**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

By 

Michael R. Ward

Registration No.: 38,651

MORRISON & FOERSTER LLP
425 Market Street
San Francisco, California 94105-2482
Telephone: 415.268.6237
Fax: 415.268.7522

Enclosures:

Attachment A- Declaration of Dr. Petter Gustafsson under 37 CFR § 1.132
Attachment A to Declaration- CV of Dr. Petter Gustafsson
Attachment B- "Latest News Week 44- 2004"
Attachment C- "Experimental data Week 43-2008"